

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A method comprising:

applying a voltage having a voltage value to pixels in a spatial light modulator (SLM) to move the pixels;

reflecting light from the moved pixels;

passing the reflected light through an apodized pupil in an optical system;

blocking a portion of a zero order lobe of a pixel diffraction pattern at the apodized pupil;

capturing an image from the light after it passes through the apodized pupil;

correlating the image and the voltage value to generate a result signal; and

calibrating the pixels using the result signal.

2. (Original) The method of claim 1, further comprising individually resolving each of the pixels using the apodized pupil.

3. (Currently Amended) The method of claim 1, further comprising using a charge coupled device (CCD) array to perform the measuring capturing step.

4. (Currently Amended) A method comprising:

applying a voltage having a voltage value to pixels in a spatial light modulator (SLM) to move the pixels;

reflecting light from the moved pixels;

passing the reflected light through an apodized pupil in an optical system;

capturing an image from the light after it passes through the apodized pupil;

correlating the image and the voltage value to generate a result signal; and

calibrating the pixels using the result signal, wherein the image of each of the pixels is captured using one cell in the CCD array.

5. (Original) The method of claim 3, wherein the image of each of the pixels is captured using more than one cell in the CCD array.

6. (Original) The method of claim 1, further comprising:
tilting the pixel through a plurality of desired angles; and
performing the capturing step for each of the desired angles.

7. (Currently Amended) The method of claim 1, further comprising:
tilting the pixel through a set of angles;
~~performed~~ performing the capturing step at each angle in the set of angles;
and
using interpolation to determine a voltage value that moves the pixel to an angle outside the set of angles.

8. (Canceled)

9. (Currently Amended) The method of claim 1, further comprising forming the apodized pupil using one of an annular and a semi-circular pattern ~~blocking a portion of a zero order lobe of a pixel diffraction pattern~~.

10. (Original) The method of claim 1, further comprising forming the apodized pupil using one of a semi-plane, a shearing grating, and an algorithm derived apodization pattern, such that variations are present in at least one of transmittance and phase.

11. (Canceled)

12. (Currently Amended) A system comprising:
means for applying a voltage having a voltage value to pixels in a spatial light modulator (SLM) to move the pixels;
means for apodizing a pupil in an optical system;

means for blocking a portion of a zero order lobe of a pixel diffraction pattern at the apodized pupil;

means for capturing an image from light that has reflected off the SLM and passed through the apodizing means;

means for correlating the image and the voltage value to generate a result signal; and

means for calibrating the pixels using the result signal.

13. (Original) The system of claim 12, wherein the capturing means comprises a charge coupled device (CCD) array.

14. (Currently Amended) A system comprising:

means for applying a voltage having a voltage value to pixels in a spatial light modulator (SLM) to move the pixels;

means for apodizing a pupil in an optical system;

means for capturing an image from light that has reflected off the SLM and passed through the apodizing means;

means for correlating the image and the voltage value to generate a result signal; and

means for calibrating the pixels using the result signal, wherein an image of each of the pixels is measured using one cell in the CCD array.

15. (Original) The system of claim 13, wherein an image of each of the pixels is measured using more than one cell in the CCD array.

16. (Canceled)

17. (Currently Amended) The system of claim 12, wherein the apodizing means comprises one of an annular and a semi-circular pattern ~~blocking a portion of a zero order lobe of a pixel diffraction pattern.~~

18. (Original) The system of claim 12, wherein the apodizing means comprises one of a semi-plane, a shearing grating, and an algorithm derived apodization pattern, such that variations are present in at least one of transmittance and phase.

19. (Original) The system of claim 12, wherein:

the voltage applying means moves each of the pixels through a plurality of desired angles; and

the correlating means determines a result signal for each of the desired angles.

20. (Original) The system of claim 12, wherein:

the voltage applying means moves each of the pixels through a set of angles;

the capturing means captures an images at each angle in the set of angles; and

the correlating means uses interpolation to determines a result signal for angles falling outside the set of angles.

21. (Original) The system of claim 12, wherein the optical system comprises projection optics of a lithography tool.